ASTRO

HDMI Source Tester

VA-1830

Instruction Manual

Ver 1.00

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ASTRODESIGN,Inc

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Revision History

Ver.	Date	Page	Item	Description
1.00	2009/3/			Initial version

Before Use

Introduction

Thank you for very much purchasing the model HDMI Source Tester VA-1830.
This manual contains details on the operation procedures to be followed when the VA-1830 is used, the checkpoints and precautions to be observed, and so on.
Before using the VA-1830, please read through these instructions.
After reading the manual, keep it in a safe place for future reference.

Safety Precautions

Malfunctioning or trouble may result if this product is not handled properly. Before proceeding to operate the product, be absolutely sure to read the safety precautions set forth below to ensure proper operation.

In order to ensure safe operation

- **Do not subject the switcher to impact or throw it. Doing so may cause the switcher to malfunction, explode or generate abnormally high levels of heat, possibly resulting in a fire.**
- **Do not use the switcher where there is a danger of ignition or explosions.**
- **Do not place the switcher inside a microwave oven or other heating kitchen appliance or inside a high pressure vessel. Doing so may heat up the switcher to abnormally high levels, cause smoking, running the risk of the switcher's catching fire and/or damaging the circuit components.**
- **This machine contains some high-voltage parts. If you touch them, you may receive an electric shock and burn yourself so do not attempt to disassemble, repair or remodel the switcher.**
- **If there is a thunderstorm while the switcher is being used outdoors, immediately turn off its power, disconnect the power cable from the main unit, and move the switcher to a safe place.**

Concerning the power cable

- **Always take hold of the molded part of the plug when disconnecting the power cable.**
- **Do not use force to bend the power cable or bunch it up for use. Doing so may cause a fire.**
- **Do not place heavy objects on top of the power cable. Doing so may damage the cord, causing a fire or electrical shock.**

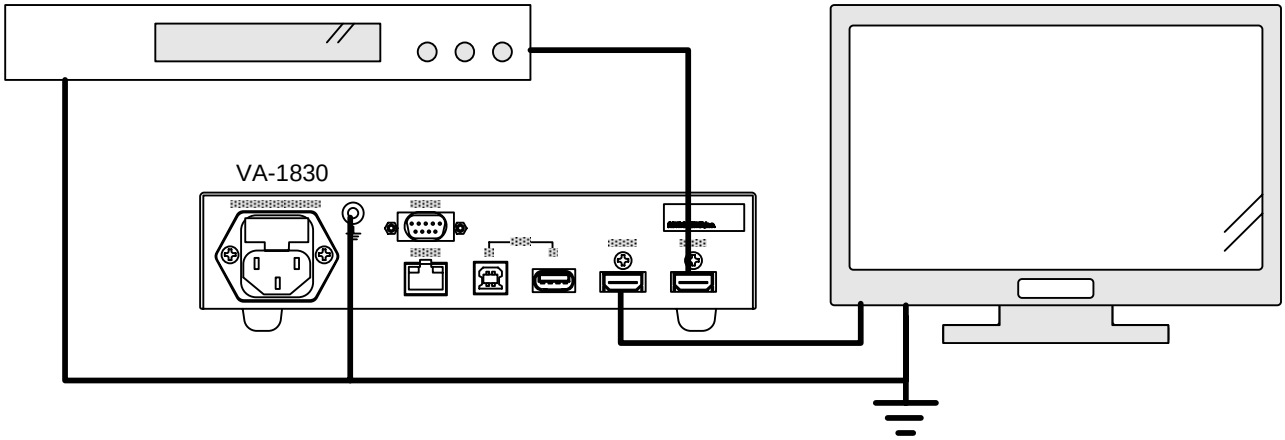
Concerning foreign matter

- **Do not spill liquids inside the monitor or drop inflammable objects or metal parts into it. Operating the switcher under these conditions may cause a fire, electric shocks and/or malfunctioning.**

Concerning this product

- **When connecting this product to another unit (such as a TV set or DVD player), use the FG cable provided or a similar cable to connect the frame ground (FG) terminal on the other unit to the frame ground (FG) terminal on the VA-1830. Failure to connect these terminals may cause the product to fail or malfunction.**

Fig. Connecting the FG terminals



Concerning impact

- **This is a precision instrument and, as such, subjecting it to impact may cause malfunctioning. Take special care when moving the machine.**
- **Do not drop the machine.**

Concerning the installation

- **Install the switcher in a stable location. Do not stand the switcher on one of its sides. Doing so may cause the switcher's temperature to rise due to heat generation, possibly resulting in malfunctioning.**

When trouble or malfunctioning has occurred

- **In the unlikely event that trouble or malfunctioning should occur, disconnect the machine's power cable, and contact your dealer or an ASTRODESIGN sales representative.**

Concerning the configuration of this manual

This manual contains the instructions for operating the VA-1830. It is configured as shown in the table below, and it describes the control methods, precautions and other aspects. Read through the manual carefully to ensure that the machine will be operated properly.

Chapter	Description
Introduction	This chapter describes the safety precautions, configuration of the manual and what is packed with the machine.
1 About VA-1830	This chapter gives an overview of the VA-1830 and describes its features.
2 Operation	This chapter describes the methods used to control the VA-1830.
3 Specification	This chapter describes the VD-1673's specifications.

What is packed with the machine

The machine comes with the following items. Be absolutely sure to use only the genuine accessories which are supplied with this switcher since the use of any non-designated items may cause malfunctioning.

■ Standard accessories

Contents	Quantity
VA-1830 Maun unit	1
VA-1830 Instruction Manual CD(PDF) or book	1
Power cable	1
FG cable	1

1 About VA-1830

1.1. General descriptions

This is a HDMI Source Tester to check the function of HDMI output automatically. It can check video, audio, DDC line and CEC line signal automatically.

By using the THROUGH mode, it can check the status of DDC and CEC lines between the Source and Sink device that are connected to the VA-1830.

1.2. Features

■ Auto test of HDMI output.

By making the Config data (reference sample data) by PC, it can perform the auto test.

■ Confirm the HDMI video output.

It can confirm the video signal that is input to VA-1830.

■ Confirm the HDMI audio output.

It can confirm the level and the frequency of the audio signal that is input to the VA-1830.

■ Confirm the HDMI control signal

It can confirm the control signal that is input to the VA-1830.

■ Confirm the DDC and CEC lines.

It can confirm the DDC commands or CEC commands that are sent to the VA-1830.

■ THROUGH mode

By using the THROUGH mode, it can confirm the communication status between the Source device and the Sink device that are connected to the VA-1830.

1.3. Names and functions of each part

1.3.1. Front panel

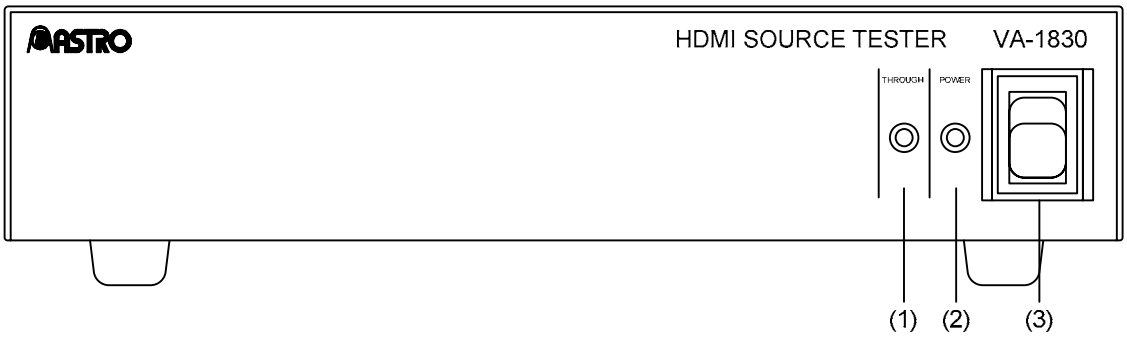


Fig. front panel

List Names and functions

Number	Names	Functions
1	THROUGH LED	It shows THROUGH Mode. (lighting : THROUGH mode active) It is also used to confirm the setting completion and the version up completion. Please refer to the “VA-1830 Terminal Command Manual” for details.
2	POWER LED	It shows power ON/OFF (lighting : power ON)
3	POWER Switch	It is used to set ON/OFF of the VA-1830’s power.

1.3.2. Rear panel

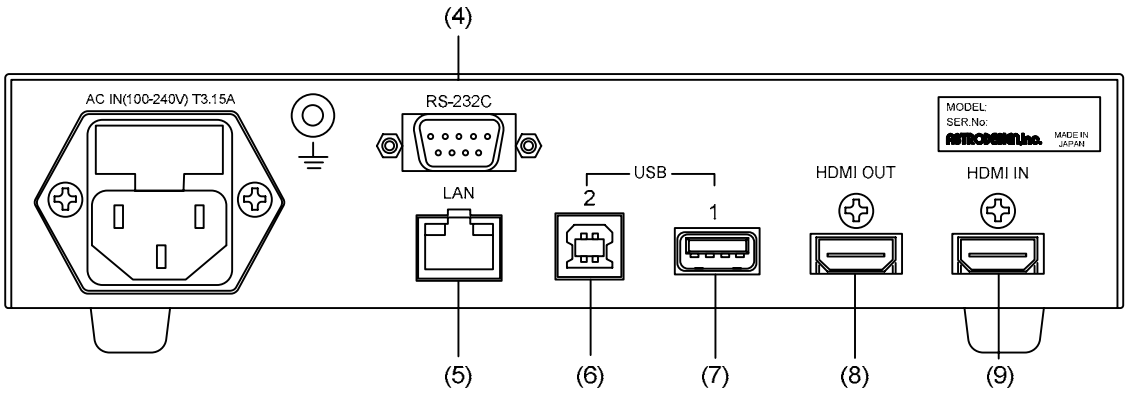


Fig. Rear panel

List Names and functions

Number	Names	Functions
4	RS-232C	By connecting with PC via RS-232C, VA-1830 is controlled by the transmission of the commands.
5	LAN	Using the Ethernet cable, LAN connection is established. VA-1830 is controlled by the transmission of the commands.
6	USB-A	Standard USB FLASH is connected.
7	USB-B	By connecting with PC via USB, VA-1830 is controlled by the transmission of the commands. Please refer to the “VA-1830 Terminal Command Manual” for details.
8	HDMI OUT	HDMI output of the VA-1830. Only when THROUGH mode is used, HDMI signal is output.
9	HDMI IN	HDMI input of the VA-1830.

1.4. Connection example

■ Confirms the output of the Source device.

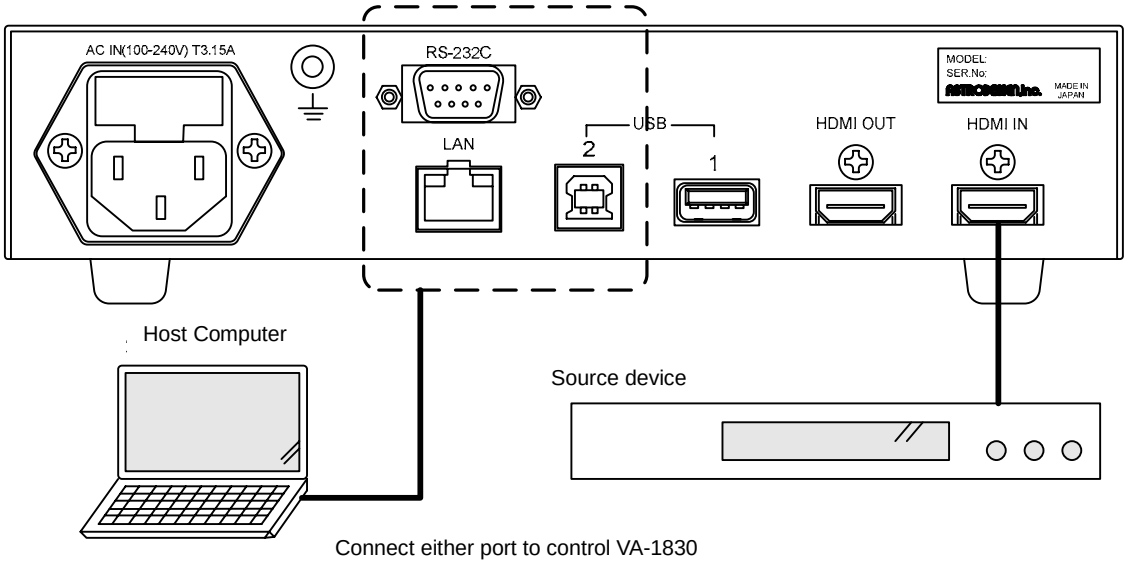


Fig Connection example 1

■ Confirms the DDC and CEC lines between the Source and the Sink

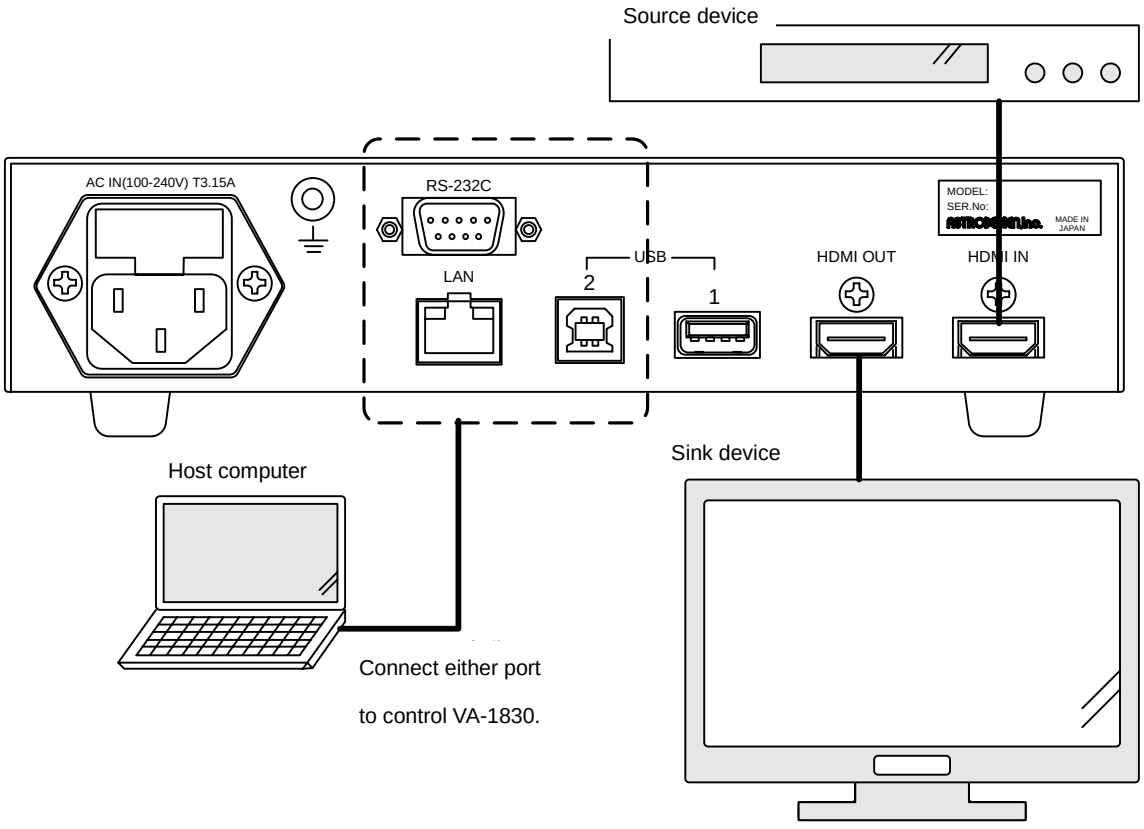


Fig Connection example 2

■ Save the setting data in the external memory.

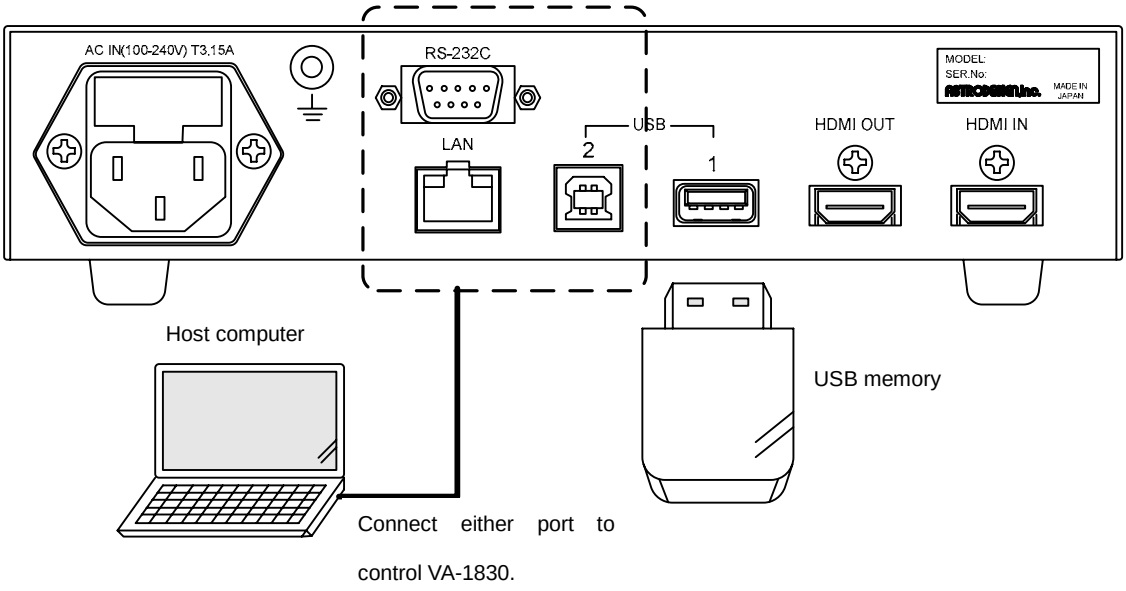


Fig Connection example 3

1.5. Version up

Version up is performed by using the USB flash.

(1) Save the [VerUp] folder of the version up data in the root folder of the USB flash.

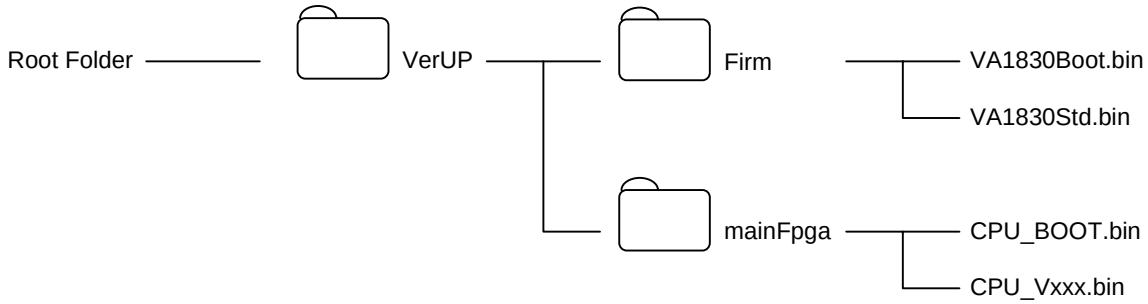


Fig Structure of the version up data.

(2) Turn off the VA-1830. Insert the USB flash to the VA-1830.

(3) Turn on the VA-1830.

(4) After a few seconds, the THROUGH LED of the front panel blinks. Version up completes.

Please do not turn off the power of the VA-1830 during version up.

2 Operation

The operation is performed by sending the commands from the PC.

2.1. Communication method

There are 3 kinds of communication method between PC and the VA-1830.

List Control method

Control method	Description
RS-232C port	Connect RS-232C ports of the VA-1830 and PC by straight cable.
LAN port	Connect LAN ports of the VA-1830 and PC by cross cable. Or, use the hub of the LAN, and connect by straight cable.
USB port	Connect the USB-B port of the VA-1830 and USB-A port of the PC by cable.

■ RS-232Cconnection

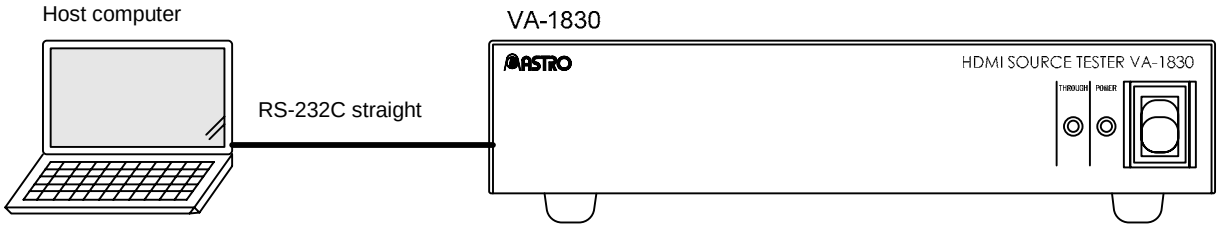


Fig. Connection by RS-232C port

■ LAN connection

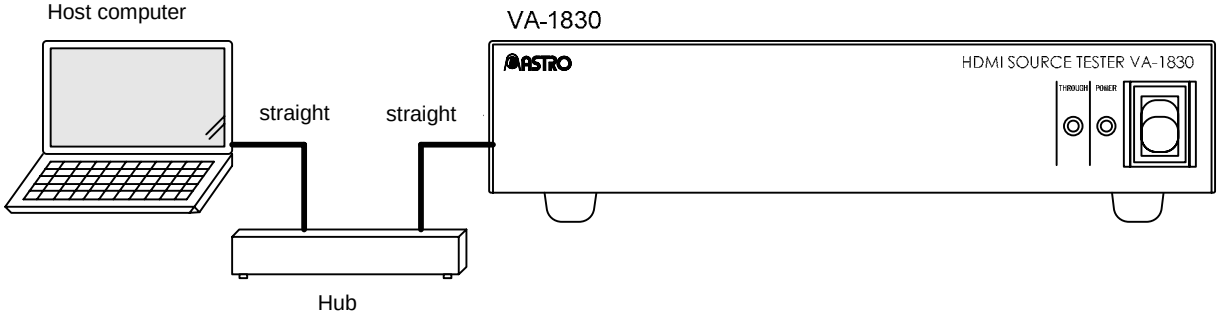


Fig Connection by LAN port (using the hub)

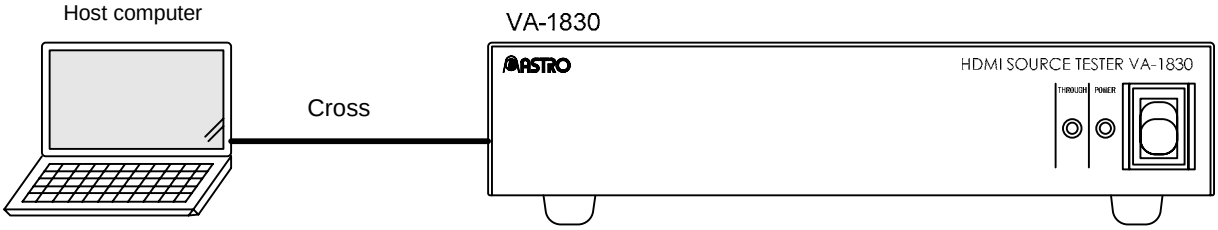


Fig. Connection by LAN port (direct)

■ USB connection

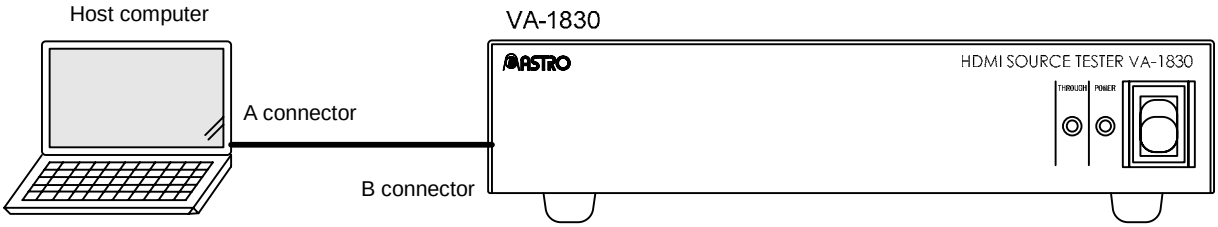


Fig. Connection by USB port

Caution

When connecting by LAN, it is necessary to set the parameter of the LAN, such as IP address by other control methods.

2.2. Terminal commands

Please refer to the “VA-1830 Terminal Commands Manual” about the details of the commands.

2.3. Data storage of the Config (reference sample) data

The Config (reference sample) data can be saved in the VA-1830 main unit or USB flash. Even you turn off the power of VA-1830, the data can be maintained.

2.3.1. Number of the storage data

List Number of the storage data

Device	Storage number
VA-1830 Main unit	10 (0 to 9)
USB Flash	256 (0 to 255)

2.3.2. Where to store the registered data

The data that is saved in the USB flash is placed below.

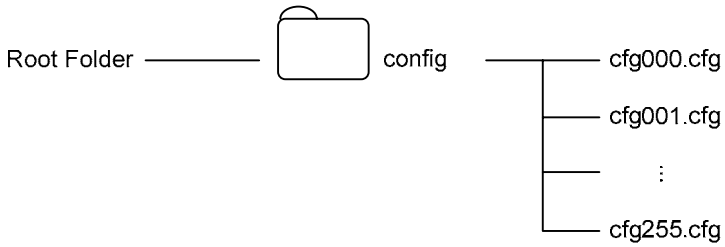


Fig. where to store the data

3 Specifications

3.1. Main specifications

3.1.1. Input and Output

List Input and Output specification

Item			Standard
HDMI Input / Output	TMDS clock		25MHz to 225MHz (12bit/150MHz)
	Video Timing	Pixel clock	25MHz to 165MHz (Up to 150MHz in case of Deep Color 12bit)
		H Total	4096 pixel
		H Active	2048 pixel
		H Blanking	2048 pixel
		V Total Line	4095 line
		V Active	2047 line
		V Blanking	2047 line
	Deep Color		8, 10, 12bit
	Color space		RGB/YCbCr444, 422
	HDCP		Available (ver.1.3)
	Audio		Sampling frequency: 32 to 192kHz Channel number : 8CH High Bit Rate Audio supported
DDC			DDC2B
E-EDID			Ver.1.4
CEA EDID Timing Extension			CEA-861-E

3.1.2. General specifications

List General specifications

Item	Description
Power supply voltage	AC100 – 240V
Frequency	50 / 60 Hz
Power consumption	15W
Dimensions	210(W) x 44(H) x 240(D)
Weight	1.3kg
Operating temperature	5 – 40℃
Operating humidity	30 – 80 % RH (no condensation)

VA-1830 Instruction Manual

NOTICE

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- This manual may not be copied in whole or in part without written permission.
- The contents of this manual are subject to change without prior notice due to improvements.
- The manufacturer will not be liable for any effects caused by incorrect operation.
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